

GenCore version 5.1.4_p5_4578
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OM protein - protein search, using sw model

Run on: March 17, 2003, 07:20:40 ; Search time 12.1756 Seconds
(without alignments)
228.975 Million cell updates/sec

Title: US-09-787-082-6

Perfect score: 173

Sequence: 1 CKGKAKSRLMYDCTGSCRGKCTRNG 29

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|----------|--------------------|
| 1 | 151 | 87.3 | 25 | 2 JH0700 | omega-conotoxin MV |
| 2 | 120 | 69.4 | 25 | 2 JH0701 | omega-conotoxin MV |
| 3 | 112.5 | 65.0 | 29 | 2 JH0699 | omega-conotoxin MV |
| 4 | 104 | 60.1 | 29 | 2 A58537 | omega-conotoxin MV |
| 5 | 97.5 | 56.4 | 26 | 2 C44379 | omega-conotoxin SV |
| 6 | 75.5 | 43.6 | 29 | 2 A43620 | omega-conotoxin GV |
| 7 | 75.5 | 43.6 | 29 | 2 B43620 | omega-conotoxin GV |
| 8 | 64 | 37.0 | 72 | 2 S39417 | metallothionein 10 |
| 9 | 60.5 | 35.0 | 66 | 2 S58086 | metallothionein 3 |
| 10 | 60.5 | 35.0 | 68 | 2 A46034 | metallothionein 3 |
| 11 | 60.5 | 35.0 | 68 | 2 I67866 | growth inhibitory |
| 12 | 59 | 34.1 | 72 | 2 S39416 | metallothionein 10 |
| 13 | 59 | 34.1 | 686 | 2 T25987 | hypothetical prote |
| 14 | 58 | 33.5 | 27 | 2 S19619 | delta-conotoxin Tx |
| 15 | 58 | 33.5 | 78 | 2 S12513 | protein C34G6.2 [i |
| 16 | 57.5 | 33.2 | 751 | 2 F87789 | protein-tyrosine k |
| 17 | 57.5 | 33.2 | 1369 | 2 S70713 | omega-conotoxin SV |
| 18 | 57 | 32.9 | 24 | 2 B44379 | omega-conotoxin SV |
| 19 | 57 | 32.9 | 72 | 2 S39419 | metallothionein 10 |
| 20 | 56.5 | 32.7 | 73 | 1 NTKN6G | omega-conotoxin GV |
| 21 | 56.5 | 32.7 | 610 | 2 JC7530 | vascular apoptosis |
| 22 | 56 | 32.4 | 318 | 2 T05569 | hypothetical prote |
| 23 | 56 | 32.4 | 2664 | 2 T28626 | variant-specific s |
| 24 | 55 | 31.8 | 60 | 1 SMH01A | metallothionein 1A |
| 25 | 55 | 31.8 | 65 | 2 A38739 | metallothionein - |
| 26 | 55 | 31.8 | 68 | 2 B46034 | metallothionein 3 |
| 27 | 55 | 31.8 | 68 | 2 S44392 | metallothionein II |
| 28 | 55 | 31.8 | 68 | 2 JC6521 | coagulation factor |
| 29 | 55 | 31.8 | 615 | 1 KFHU12 | |

ALIGNMENTS

RESULT 1

JH0700

omega-conotoxin MVIIA [validated] - cone shell (Conus magus)

C;Species: Conus magus (magus cone)

C;Date: 17-Apr-1993 #sequence.revision 17-Apr-1993 #text_change 15-Sep-2000

C;Accession: JH0700; C60133; A34115

R;Hillyard, D.R.; Monje, V.D.; Mintz, I.M.; Bean, B.P.; Nadasdi, L.; Ramachandran, J. Neuron 9, 69-77, 1992

A;Title: A new conus peptide ligand for mammalian presynaptic Ca2+ channels.

A;Reference number: JH0699; MUID:92337922; PMID:1352986

A;Accession: JH0700

A;Status: nucleic acid sequence not shown

A;Molecule type: mRNA

A;Residues: 1-25 <Hil>

R;Olivera, B.M.; Gray, W.R.; Zeikus, R.; McIntosh, J.M.; Varga, J.; Rivier, J.; de S Science 230, 1338-1343, 1985

A;Title: Peptide neurotoxins from fish-hunting cone snails.

A;Reference number: A43620; MUID:86070213; PMID:4071055

A;Accession: C60133

A;Molecule type: protein

A;Residues: 1-25 <Oli>

R;Olivera, B.M.; Cruz, L.J.; de Santos, V.; LeCheminant, G.W.; Griffin, D.; Zeikus, Biochemistry 26, 2086-2090, 1987

A;Title: Neuronal calcium channel antagonists. Discrimination between calcium channel

A;Reference number: A34115; MUID:87299637; PMID:2441741

A;Contents: annotation

R;Nielsen, K.J.; Thomas, L.; Lewis, R.J.; Alewood, P.F.; Craik, D.J. submitted to the Brookhaven Protein Data Bank, August 1996

A;Reference number: A67648; PDB:1MWI

A;Contents: annotation; conformation by (1)H-NMR, residues 1-25

R;Nielsen, K.J.; Thomas, L.; Lewis, R.J.; Alewood, P.F.; Craik, D.J. J. Mol. Biol. 263, 297-310, 1996

A;Title: A consensus structure for omega-conotoxins with different selectivities for

A;Reference number: A58619; MUID:97070382; PMID:8913308

A;Contents: annotation; conformation by (1)H-NMR

R;Kohn, T.; Kim, J.I.; Kobayashi, K.; Kadera, Y.; Maeda, T.; Sato, K. submitted to the Brookhaven Protein Data Bank, April 1995

A;Reference number: A66296; PDB:1OMG

A;Contents: annotation; conformation by (1)H-NMR, residues 1-25

R;Kohn, T.; Kim, J.I.; Kobayashi, K.; Kadera, Y.; Maeda, T.; Sato, K. Biochemistry 34, 10256-10265, 1995

A;Title: Three-dimensional structure in solution of the calcium channel blocker omeg

A;Reference number: A58627; MUID:95367555; PMID:7640281

A;Contents: annotation; conformation by (1)H-NMR

C;Superfamily: Omega-conotoxin

C;Keywords: acetylcholine release inhibition; amidated carboxyl end; calcium channel

F;1-16,8-20,15-25/Disulfide bonds: #status predicted

F;25/Modified site: amidated carboxyl end (Cys) #status experimental

Query Match

Best Local Similarity 87.3%; Score 151; DB 2: Length 25;

Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

C;Accession: T25987
R;Connell, M.

R; Fainzilber, M.; Gordon, D.; Hason, A.; Spira, M.E.; Zlotkin, E.
Eur. J. Biochem. 202, 589-595, 1991

A:Title: Mollusc-specific toxins from the venom of Conus textile neovicarius.
 A:Reference number: S19553; MOID:92104183; PMID:1761058
 A:Accession: S19553
 A:Molecule type: protein
 A:Residues: 52-78 <FAI>
 C:Superfamily: omega-conotoxin
 C:Keywords: neurotoxin; sodium channel inhibitor; venom
 F:1-22/Domain: signal sequence #status predicted <SIG>
 F:23-51/Domain: propeptide #status predicted <PRO>
 F:52-78/Product: delta-conotoxin TxVIA #status experimental <MAT>
 F:53-68,60-72,67-77/Disulfide bonds: #status predicted

Query Match 33.5%; Score 58; DB 2; Length 78;
 Best Local Similarity 42.3%; Pred. No. 6.8;
 Matches 11; Conservative 2; Mismatches 13; Indels 0; Gaps 0;

QY 1 CKGKGAKCSRLMYDCCTGCRSGKCT 26
 || | | | | | | | | | | | | | | | | | | | |
 Db 53 CKSGEMCNLLDQNCDDGYCIVLVCT 78

Search completed: March 17, 2003, 07:27:25
 Job time : 12.1756 secs

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